Department of Health and Human Services
Grant Request to Establish Medical Reserve Corps Units

SECTION 1: PROJECT SUMMARY

Enormous diversity exists in rural America and particularly in rural southwest Virginia. Rural communities differ widely in their economic bases, geography, proximity to urban area, and in many other ways. But there are commonalities between rural communities too. Some commonalities shared across rural southwest Virginia include:

- Geographic constraints and weather extremes
- Limited access to hazardous materials (HAZMAT) equipment and resources
- Healthcare workforce challenges, and reliance on volunteer first responders
- Limited abilities to quarantine and decontaminate small or large groups of people
- Limited hospital capacity and extremely limited "surge" capacity
- Deficiencies in emergency communication systems
- Limited personnel with experience in large-scale disasters or emergencies, surveillance, or outbreak monitoring
- Wide variation in public and private healthcare infrastructure
- Primary care delivered through Community Health Facilities and isolated practitioners, which are not formally part of emergency preparedness planning
- Difficulty complying with multiple and uncoordinated emergency planning efforts, especially where a health department or hospital covers more than one locality.

Rural America, including southwest Virginia, also shares complacency about emergency preparedness. Most rural Americans believe themselves to be at a low risk for terrorist activity. Their health system leaders express ambivalence about emergency preparedness, and its

perceived low risk compared to the significant burdens they face in financial, human resource and regulatory matters.

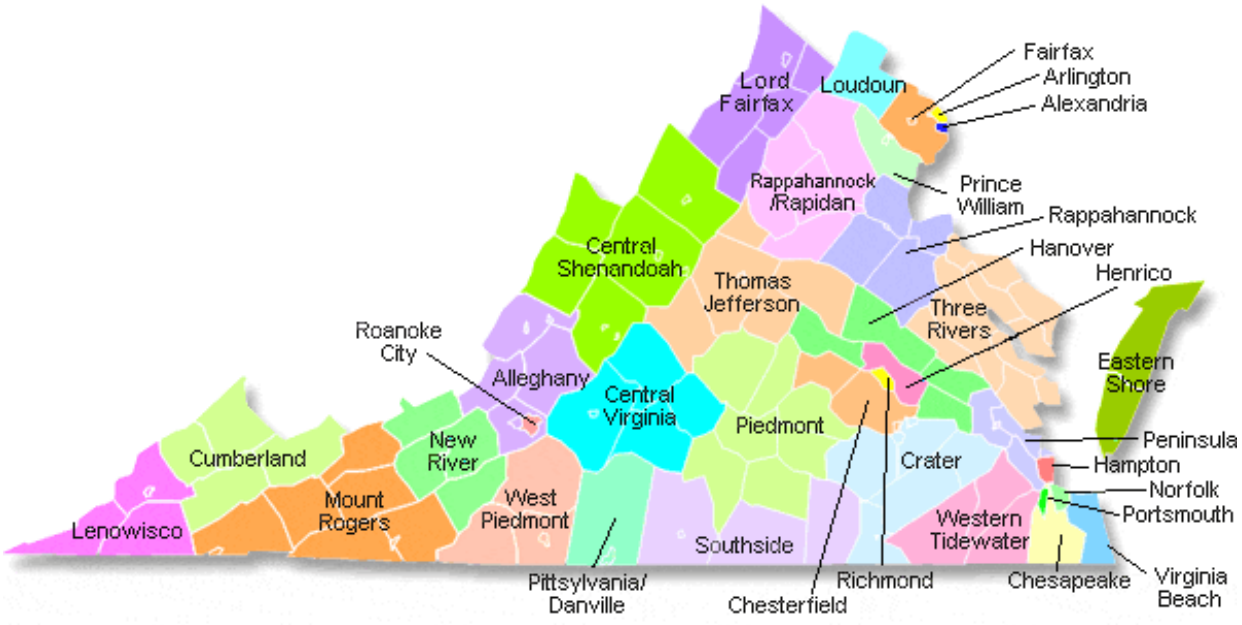
Given the recent threats of terrorism and the current social climate of the world, it is imperative that communities be prepared to respond to terrorist attacks involving chemical, biological or nuclear agents should an event occur within their community. Organizing a cadre of professionals including nurses, physicians, mental health professionals clergy, pharmacists and providing them with training on emergency response and then developing the organizational framework to utilize these professionals for days to supplement existing public resources would allow more rapid and organized response to this type of disaster, or to any similar situation requiring rapid deployment of such professionals. This quick community-based response to an emergency has the ability to save many lives that may otherwise be lost because of a longer response time.

In a remote area such as ours with limited local resources, both public and private sectors are called upon in an emergency. Having structure and organization to a volunteer network would be an extremely valuable asset as well as permit maximum efficiency of resource allocation. Although we may not be able to prevent terrorist attacks or natural disasters, the Medical Reserve Corps Units proposed by Lenowisco, Cumberland Plateau and Mount Rogers Health Districts will be trained and ready to respond within hours should such an event occur within their community.

SECTION 2: PROJECT NARRATIVE

I. BACKGROUND

The sixteen jurisdictions, thirteen counties, three cities and thirty-nine towns, comprising the first three health districts in rural southwest Virginia are the service area proposed for regional Medical Reserve Corps units. Lenowisco and Cumberland Plateau Health Districts are located in the rural coalfields of southwestern Virginia and serve Lee, Scott, Wise, Buchanan, Dickenson, Russell, and Tazewell counties and the City of Norton. The Mount Rogers Health District serves Bland, Carroll, Grayson, Smyth, Washington and Wythe counties and the cities of Bristol and Galax. According to the 2001 U.S. Census Bureau, there were 397,438 people living in the proposed service area and twenty-six percent of these individuals over age five are reported to have a disability.



This region is geographically part of the Appalachian Mountain Chain and has historically relied on coal mining and timber industries as an important part of the economic infrastructure for employment. The steep mountain slopes, hollows and narrow valleys have

challenged modern highway construction and public transportation over much of the area. Some improvements in highways have been made in parts of the three districts over the past ten years, but transportation issues continue to be a barrier to accessing health care in much of the area.

All three Health Districts serve an impoverished region whose unemployment rate ranks the highest in the state and two times the national average. Loss of jobs from mechanization of the mining industry and major factory closings has displaced many workers from those jobs and related industry leading to unemployment rates that are among the highest in the Commonwealth of Virginia. According to the Virginia Employment Commission's Local Area Unemployment Statistics for January 2003, the Commonwealth of Virginia experienced an unemployment rate of 3.9 percent. While Dickenson County suffered the state's worst jobless rate at 17.0 percent and Smyth County had the second highest jobless rate at 11.4 percent. During January 2003, the entire area proposed by the MRC grant had unemployment rates ranging from 5.3 percent to 17 percent, almost double the state's unemployment average. High unemployment rates and high poverty levels makes achieving health care a challenge and increases the need for federal and state assistance. Excessive numbers of families are uninsured and simply feel they cannot afford health care. These individuals live day-to-day hoping they don't have to face a major medical emergency.

The area suffers not only from high unemployment rates, but also from the State's highest poverty levels. According to the U.S. Census Bureau – *County Estimates for People of All Ages in Poverty in Virginia: 1999*, Virginia's poverty level was estimated to be 9.0 percent. The service area proposed for the MRC grant has an average poverty rate of 15.3 percent.

As is common in areas suffering from high poverty rates, the educational levels for Southwest Virginia are below average. Thirty-eight percent of individuals over 25 years of age

have eight years or less of education, compared to the twenty percent average for rural counties nationwide. Less than half of the residents have a high school diploma compared to 75 percent statewide.

The harsh economic conditions, coupled with local disasters are devastating to impoverished communities. During the past 36 months, there have been four federal declarations declared as a result of flooding which was also accompanied by the loss of lives. Two districts had 15 state declarations of emergency declared as a result of flooding. Federal, state and local agencies responded to these emergencies, assisting in evacuation, search and rescue, damage assessment and containment, relocation, temporary shelter establishment and cleanup, in several cases remaining on-site for weeks following the flooding (see Appendix A, Emergency Management Update articles). In addition to flood-related emergencies, winter weather emergencies caused by heavy snow, ice and power outages have also resulted in declarations of emergencies in the area.

On a positive note, rural southwest Virginia is experienced and adept at collaboration using scarce resources, and boasts excellent working relationships between its public, private and volunteer sectors. During times of disaster, local community organizations, volunteer groups, churches, medical professionals and state agencies work together to provide care and support to local citizens. Local volunteers, civic groups and churches play roles in assisting with provisions of food and shelter for displaced citizens and workers. Unfortunately, this response often took one to two days getting organized and had limited ability to communicate the availability of these resources to those affected communities except by word of mouth.

Shelters were opened by local agencies including Department of Social Services and staffed, in part, with local public health nurses, but the long hours of operation and the number of

shelters opened quickly overwhelmed the local agency's ability to maintain adequate staff at shelters. In responding to these disasters, it was evident that some of the emergency plans did not fully address the needs of the community, thus we are in the process of reviewing and making revisions to those plans.

The medical needs of patients presenting to shelters in many cases also presented additional difficulties in staffing shelters with appropriate trained staff for more medically needy patients. In the March 2002 flood, a shelter in Coeburn, Virginia housed a quadriplegic patient, a patient on hemodialysis and a patient on continuous oxygen supplementation. The shelters operationally relied on the public health agency for appropriately credentialed staff. Medical protocols for shelter operation were inadequate to address such complex medically needy clients, and no acute care hospital would accept these medically fragile individuals.

Access to medical care is an ongoing issue in the region. For the past three years, a Remote Area Medical (RAM) health screening has been conducted each July providing health care services, dental services and eye exam and glasses to over 2000 people at a three-day health screening held in Wise, Virginia. In 2002, over 2,600 people received services from professional volunteers who come from all over the state.

Therefore, on this backdrop of collaborative success both during the flooding, and during the past three RAM events, this is an opportune time to have overwhelming participation and support of our community volunteer groups and local governments in the establishment of community-based volunteer Medical Reserve Units in rural southwest Virginia.

MRC activities to address ongoing public health priorities in the community may include collaborating with communities and public health agencies, to identify and prioritize action for MRC response. Presently, public health priorities in the districts include: Healthy People 2010

goals for achieving 95% age appropriate immunization rates of all two-year olds (present rates about 75%); lowering the percent of adults and teens who use tobacco products to HP2010 goals; decreasing complications and hospitalizations related to diabetes mellitus (both of which are 2-3 fold higher in southwest Virginia than the rest of the state). A very active diabetes coalition made up of representatives of a variety of private providers, professional and lay people have plans in the upcoming year to begin retinopathy screening clinics in conjunction with ophthalmologists in other parts of the state.

The MRC volunteers may participate in these clinic activities and will play a productive role in meeting pressing, but non-emergency public health needs of the community throughout the year. Medical Reserve Corps volunteers may deliver necessary public health services during a crisis, assist emergency response teams with patients, and provide direct care to those with less serious injuries and other health-related issues. Once established, how the local MRC units are utilized will be decided locally.

Acute care/health care services are provided by ten hospitals located in ten of the sixteen jurisdictions, as well as two psychiatric facilities and two in-patient drug detox facilities. All jurisdictions are federally designated medically under-served areas or partial federally designated medically under-served areas (see Appendix B), and the entire area (all sixteen jurisdictions) are designated as mental health professional under-served. Because of the serious healthcare workforce challenges that face all of Virginia's rural communities, Medical Reserve Corps may be especially important components of rural emergency response capacity.

II. GOALS, OBJECTIVES AND TIME LINES:

In developing the MRC goals, objectives and time lines, the following assumptions applied:

1) A large-scale biological incident will produce thousands to hundreds of thousands of casualties and/or fatalities.

2) During a biological terrorism event, actual infected casualties and the "worried well" seeking aid will overwhelm the emergency medical system (EMS) and hospitals.

3) Most casualties seeking medical care following a biological terrorism attack will be ambulatory.

4) Hospitals will activate internal disaster plans and redirect resources to care for the most seriously ill.

5) Being able to establish a large community-based "mash unit" is the most efficient way to provide rapid treatment to a large population.

6) A simple system that rapidly integrates available medical resources and provide massive casualty management will be needed.

7) During a terrorist event, the standard of care will need to be changed to provide care to all those affected.

The project's major goal is to recruit volunteers from a variety of health professions such as doctors, nurses, EMTs, pharmacists, mental health practitioners, health educators, health interpreters, former military personnel with health training, health technicians and assistants and more. Volunteers may be retired, part-time or full-time workers. Their training needs and interests will be assessed and a training program will be designed to meet the volunteers' needs.

The MRC initiative will provide the local organizational framework, including training, locally agreed procedures, protocols and processes, and partnership building among local organizations, including local government agencies, and non-governmental organizations (e.g.,

faith-based groups, hospitals, health professions organizations, the American Red Cross, academic institutions and others).

The rural southwest Virginia MRC units will be an integral component in the local plan for implementing a community-wide smallpox vaccination program, as well as being essential in the event of a natural disaster or a man-made incident. Each local MRC unit will be established, activated and operated by the local community, in concert with established emergency response and public health systems. The MRC units will be an important additional resource to address health problems that a local community might incur. In addition to enhancing the community's capacity to respond to a natural disaster or other catastrophic event, volunteers may help with local health campaigns – such as immunizations, safety and other community health education and awareness programs.

The overall goals of this demonstration project are to: 1) develop a protocol and plan of action with representatives of local government and community-based organizations to identify local medical professionals that would participate in a community-based volunteer Medical Reserve Corps (MRC) unit, 2) establish the role for MRC units in each localities' emergency response plan in the Lenowisco, Cumberland Plateau and Mount Rogers Health Districts, 3) establish the MRC unit as a very important part of the local emergency response team to rapidly respond to natural disasters and bioterrorism events and on-going public health needs, 4) to assist localities with forming local medical reserve response corps units that are effective and functional even if the community is not experiencing a disaster, 5) fosters cooperative partnerships to improve disaster readiness in rural southwest Virginia, and 6) during a disaster, to assist local agencies in response as well as a support mechanism for individuals, families and businesses involved.

OBJECTIVE 1: By November 1, 2003 establish a MRC Steering Committee in each health district composed of representatives from government and community-based organizations.

OBJECTIVE 2: By October 30, 2003, recruit and hire a MRC Project Coordinator.

OBJECTIVE 3: By November 30, 2003, obtain an opinion from the State Attorney General's Office regarding liability issues pertaining to the use of volunteer MRC units during natural disasters and bioterrorism emergencies (see Appendix C).

OBJECTIVE 4: By January 31, 2004, district MRC Committees develop a database of retired and active medical professional in each district.

OBJECTIVE 5: By February 28, 2004, contact potential MRC participants requesting their assistance.

OBJECTIVE 6: By March 31, 2004, compile a list of medical professionals who have agreed to volunteer in a local MRC unit. MRC Committee begins verification of medical credentials.

OBJECTIVE 7: By April 30, 2004, complete verification of medical credentials and notify volunteer medical professionals.

OBJECTIVE 8: By April 30, 2004, assess volunteer training needs of MRC units. Plan and develop protocols and training materials for community MRC units.

OBJECTIVE 9: By May 31, 2004, meet with each community MRC unit and designate a leader for each unit. Schedule training sessions for MRC units.

OBJECTIVE 10: By July 31, 2004, complete staff training for each MRC unit.

OBJECTIVE 11: By August 31, 2004, ensure that each MRC unit has been incorporated into the existing local emergency response plans for natural disaster and bioterrorism events.

OBJECTIVE 12: By September 30, 2004, prepare MRC units to participate in the local MOCK disaster exercises. Continue on-going education and quarterly meetings with MRC units.

III. SUMMARY OF EXISTING RELEVANT COMMUNITY RESOURCES, AND COMMUNITY PARTNERS

Since the addition of Bioterrorism (BT) Preparedness and Response directives, each health district in the Commonwealth of Virginia hired a District Epidemiologist and a District Emergency Planner. These positions work with local governmental agencies, hospitals and the local offices of the Virginia Department of Emergency Services in preparing and responding to natural disasters and bioterrorist events.

List of Local Services and Resources

Collaborate efforts with related Organizations

- Local Emergency Planning Committees (LEPC)
- Department of Social Services
- Emergency Operations Coordinators
- Chambers of Commerce
- Schools located within the three health districts
- Area Hospitals
- Local Emergency Medical Services (Police, Fire, EMS) in each locality
- Local Mental Health agencies

- Public Transportation
- Other identified partners

Regional

- Community Colleges and Universities
- Red Cross
- Virginia Defense Force
- Salvation Army
- Southwest Virginia Emergency Medical Services Council
- Mountain Empire Public Health Emergency Coordination Council

State

- Citizens Corp Councils
- Virginia Department of Emergency Management

A committee comprised of the District Health Directors (Physicians), District Epidemiologists, District Emergency Planners and representatives from the local Medical Societies, Hospitals, Virginia Department of Emergency Management, Schools, Mental Health agencies, American Red Cross, Local Emergency Planning Committees, Mountain Empire Public Health Emergency Coordination Council (MEPHECC) and other civic groups will develop a plan of action for the establishment of community-based volunteer Medical Reserve Corps Units to rapidly respond to natural disasters and bioterrorism events, as well as to address ongoing public health priorities. This community-based group can help identify and build upon resources at the local level.

Medical Reserve Corps units will be managed at the local level by District Health Directors and will be comprised of leaders from Emergency Management, volunteer community services, faith community based organizations, educational institutions, medical facilities and local business and industry.

Plan for integrating services with existing resources

- MRC units will form a networking relationship with community, local, state and federal agencies. The MRC units will be integrated into the local emergency services organizational chart (see Appendix D).

Resource Partners:

- Virginia Department of Emergency Management (VDEM)
- Southwest Virginia Emergency Medical Services Council
- Medical Society of Virginia
- Virginia Dental Association
- Virginia Center for Health Outreach
    - Migrant Health Network – Saltville Medical Center
    - Resource Mothers - Lenowisco, Cumberland Plateau and Mount Rogers Health Districts
    - Comprehensive Health Investment Project of Southwest Virginia People's Inc.
    - Russell County Ministerial Fellowship
    - Community Extended Care Services
    - EFNEP/SCNEP Southwest Virginia Cooperative Extension
    - Healthy Families of the Southwest

- Diabetes Lay Health Promotion Program – Wise Health Department
- Clinch Valley Community Action Agency – Head Start

IV. KEY PROJECT STAFF/ORGANIZATIONAL STRUCTURE

1) Eleanor S. Cantrell, MD, MPH., Director Lenowisco Health District

2) John J. Dreyzehner, MD, MPH., Director Cumberland Plateau Health District

3) Craig Smith, MD, MPH., Director Mount Rogers Health District

4) District Epidemiologist and Bioterrorism Preparedness and Response Personnel (Lenowisco, Cumberland Plateau and Mount Rogers Health Districts).

5) Jack Tolbert, Jr., Regional Director, Virginia Department of Emergency Management

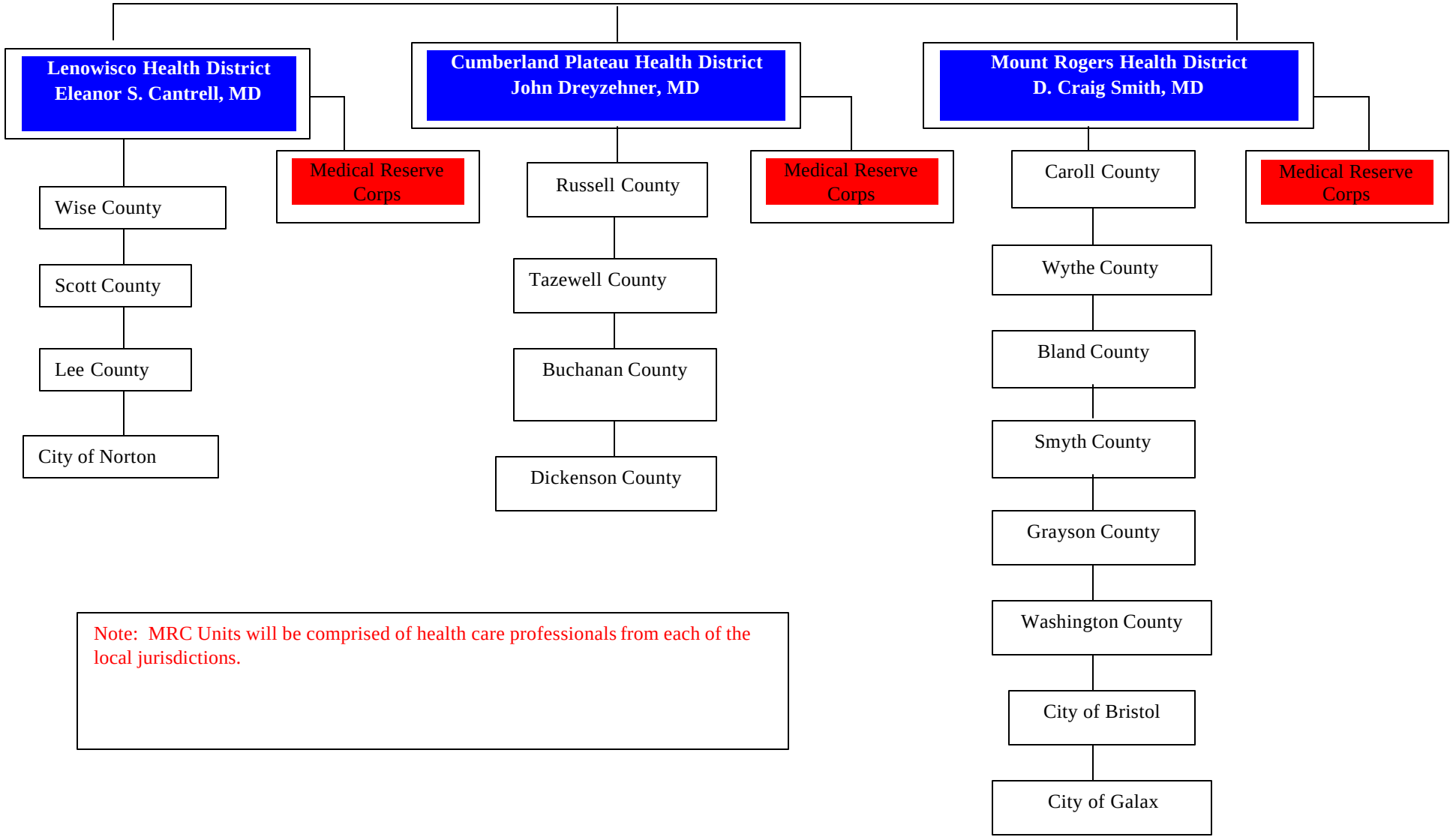
6) District Emergency Planners (Lenowisco, Cumberland Plateau and Mount Rogers Health Districts).

7) Patty Tauscher, Emergency Services Director, Mountain Empire Chapter, American Red Cross

8) Medical Reserve Corps Coordinator: Applications for this position will be advertised. Anticipate position filled by October 30, 2003. This position will be located centrally within the three Health District and will be an important part of the development of the MRC units.

MRC ORGANIZATIONAL CHART

LENOWISCO, CUMBERLAND PLATEAU AND MOUNT ROGERS HEALTH DISTRICTS
MEDICAL RESERVE CORPS (MRC)



Note: MRC Units will be comprised of health care professionals from each of the local jurisdictions.

V. STRATEGY/PLANS

Realizing the tremendous need for additional medical assistance in the time of a disaster, the Medical Reserve Corps units will be comprised of local health care volunteers who can assist their own community during a large-scale emergency. The program proposed is multifaceted, comprehensive and innovative. We anticipate that the Medical Reserve Corps will add a crucial medical component to citizens in southwest Virginia.

The Medical Reserve Corps units will provide an effective organizational framework that will attract volunteers and provide them with skills needed to work effectively in emergency situations. In the event of a public health emergency, volunteers of the Medical Reserve Corps unit, once established and appropriately trained, will provide surge capacity for existing emergency services in rural southwest Virginia. These units will also provide a core group of trained medical professionals who can be called upon to support ongoing public health surveillance activities when there is a need for additional support.

The functions of the Medical Reserve Corps are to help strengthen critical infrastructure and increase the capacity of our regional public health system to effectively respond to community health concerns and needs as they occur. The MRC will provide cadres of health professionals, from within their home communities, who will contribute to the resolution of public health problems and needs throughout the year. The Medical Reserve Corps will provide systematic, coordinated and effective medical response to any type of disaster affecting their community. Specifically, a catastrophic incident where the number of casualties significantly overwhelms a community's existing medical capabilities and involves an outbreak of disease that may or may not be communicable.

These community-based units will become an effective unit of the existing emergency medical response systems as well as contribute to meeting the public health needs of the community throughout the year. Volunteers will be trained to assist with communicable disease outbreaks, acts of terrorism, environmental hazards and community education. The purpose of the MRC is to expand the capacity of a community's existing medical system by making more efficient use of finite medical resources. The MRC will serve as a framework for which outside disaster medical resources can effectively augment local medical response efforts. The MRC will serve as a temporary community-based medical response team, providing mass triage and stabilization treatment to casualties of a terrorism attack or a natural or man-made disaster.

During a disaster, the MRC units will work in conjunction with volunteer organizations and other local, state and federal agencies. By coordinating with key government officials and community and business leaders, the MRC will act as a catalyst for the development of private-public partnerships. Local officials in cooperation with Health Department Directors will develop their own reserve of medical professionals based on their community's needs. Once established, how the local MRC units will be utilized will be decided locally. Local officials or Health Department Directors will decide if and when to activate the Medical Reserve Corps during an emergency. Medical reserve volunteers will receive assignments based on their skills and qualifications (some assignments may be pre-assigned). Each local community will develop its own team of medical reservists; that will be able to respond to local emergencies within a few hours of being called into action.

The local MRC Units are comprised of volunteer members drawn from each of the sixteen (16) counties and cities that make up the far southwest Virginia region. It is anticipated that the Medical Reserve Corps will facilitate communication; cooperation and coordination with

local emergency response efforts to provide volunteer health and medical care in the event of an emergency. The volunteers' responsibilities will include emergency response, logistical planning, records keeping, assisting in public health and awareness campaigns and public communications.

All volunteers will be trained in disaster response to achieve needed competency standards. A need for such training became apparent after the Oklahoma City bombing where hundreds of medical volunteers rushed to be of assistance. While their services were needed, emergency managers were not prepared to use the flood of help effectively. The death of a volunteer nurse caused by falling debris demonstrated the need for medical volunteers to be trained in safety procedures during a disaster.

Virginia Department of Emergency Management (VDEM) offers independent study courses in emergency preparedness as well as other preparedness courses. The Community Emergency Response Team (CERT) program provides emergency preparedness training to local communities. Training on basic disaster medical operations, fire safety, light search and rescue and other essential topics will also be considered. The CERT training includes a disaster simulation in which MRC volunteers will practice their skills. The Virginia Department of Health has training programs offered through the Emergency Preparedness and Response Program as well as through the Office of Emergency Medical Services. Another excellent resource for training needs may be local community colleges and universities.

Medical Reserve Corps Units in each region will maintain accurate records to include, but not limited to, accounting for funds; roster of all volunteers; issuance of an identification badge; organization of meetings and preparation of related documentation; maintaining MRC unit records, including incident reports; maintenance of equipment inventory; routine

communications with volunteers and others; and verification of volunteer's credentials. All reports will be submitted in a timely manner.

A study done by the American Medical Association (AMA) in 1994 found that two-thirds of all practicing physicians provided some free or reduced fee care, averaging 12% of their work time. Moreover, time spent in volunteer work had increased between 1990 and 1994. Although volunteerism has increased, the concern for liability issues continues to be a barrier. Fortunately, some of these issues are being resolved. There are a number of potential sources of immunity for community health workers and community health organizations under Virginia law (see Appendix C), but individuals who participate in MRC activities will be advised of their potential risks of liability under state law. A new Virginia law that went into effect this month better allows the State to prepare for disasters caused by terrorism. "Virginia now has one of the broadest provisions of immunity from liability for health care providers and volunteers in emergencies of any state", said George Foresman, deputy assistant to Governor Mark R. Warner.

VI. PROJECT EVALUATION:

- The project evaluation will be based on the completion of objectives in accordance to time line.
- The successful coordination of local planning committees and identifying retired and current medical professionals interested in participating in their local Medical Reserve Corps.
- Completing verification of all volunteers' medical credentials and completion of training modules by 100% of MRC participants.
- Ensure all localities' emergency plans have incorporated the MRC unit and the Medical Reserve Corps coordinator will review all plans.

- Testing will be performed on all plans to evaluate surge capacity at the community level during emergency situations, and plans will be revised appropriately.
- The MRC unit will be subject to Mock disaster exercises where it will be evaluated on their response. This will evaluate the organizational framework within a medical command center model.
- Evaluate the components of the MRC by profession to assess the contribution of that particular profession toward the resolution of medical problems in their localities during an emergency and on an ongoing basis.

The local MRC units will develop targets and milestones against which to measure progress on an on-going basis. Examples might include completion and maintenance of key guidance documents for the MRC units, such as the unit's scope of operations and operational procedures; volunteer recruitment goals; training goals; partnership building goals; table-top and field exercise goals.

VII. STATEMENT OF WILLINGNESS TO CONTRIBUTE WRITTEN INFORMATION

The Lenowisco, Cumberland Plateau and Mount Rogers Medical Reserve Corps units will share written information to the Office of the Surgeon General to share with other communities establishing Medical Reserve Corps.

VIII. PLANS FOR SUSTAINING THE MRC UNIT

Funding to sustain the MRC program will be sought from local government officials in the thirteen counties and three city jurisdictions. United Way and other nonprofit organizations will be contacted as well as local business and industry entities located in the three health districts.